### UNIVERSITY OF TORONTO, MISSISSAUGA MASTER OF FORENSIC ACCOUNTING

## RESEARCH PROJECT FOR EMERGING ISSUES/ADVANCED TOPICS COURSE (IFA 2903H)

### GENDER ASSUMPTIONS IN LOST EARNING DAMAGES ASSESSMENT

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### Contents

Ι.		. 3				
н.	GENDER IN THE CONTEXT OF LABOR FORCE PARTICIPATION, WORKLIFE EXPECTANCY AND EARNINGS	.6				
Α.	Gender discrimination	.6				
в.	Labor force participation rate	.7				
С.	Unpaid work	11				
D.	Potential labor force participation rate15					
Ε.	Worklife expectancy	17				
F.	Earnings	20				
G.	. Gender-neutral and gendered assumptions27					
н.	. Gender-neutral assumptions – a case study					
ш.	. ALTERNATIVE APPROACHES TO ESTIMATING FEMALE LABOR FORCE PARTICIPATION AND EARNINGS					
Α.	A. Gendered assumptions					
в.	Using male statistics if there is disparity between male and female employment statistics	38				
	<b><u>1.</u></b> Gender bias embedded in actuarial statistical tables	38				
	2. Economic value of childbearing and childrearing	45				
	3. Gender earnings gap	48				
	<b><u>4.</u></b> Male employment statistics as a default position	52				
	5. Can and should the IFAs bring about change?	62				
IV.	CONCLUSION	63				
APPENDICES						
BIBLIOGRAPHY						
COURT CASES						

#### I. INTRODUCTION

The purpose of an award for loss of earning capacity is to restore the plaintiff, as best as possible, to the position he or she would have been in had the accident not occurred<sup>1</sup>. In personal injury claims the damages award usually covers the following main areas:

- Personal care cost of assisted living over the life expectancy;
- Lost earnings based on projected earnings, worklife expectancy and earnings growth;
- Loss of personal services provided by or performed by the victim.

This paper will be focusing on lost earnings capacity. The standards used by the courts in determining the award for damages are fairness and accuracy. However, historically the amount of the award given to women was consistently lower compared to men, all other circumstances being the same. The main driver behind this difference was the sex of the victim, as gender-specific assumptions were used.

Fair Calculations in Damages Act that was proposed in the US Congress in 2016 and 2019 (it was not voted on on both occasions) requires that the damages awards be set based on genderneutral assumptions. The purpose of the Canadian Pay Equity Act is to achieve pay equity through proactive means by redressing the systemic gender-based discrimination in the compensation practices and systems of employers that is experienced by employees who occupy positions in predominantly female job classes so that they receive equal compensation for work of equal value, while taking into account the diverse needs of employers, and then to maintain pay equity through proactive means<sup>2</sup>. Under Ontario's laws, "pay equity" is different from "equal pay for equal work" – "an employer cannot pay one employee at a rate of pay less than another employee on the basis

<sup>&</sup>lt;sup>1</sup> McColl v Sullivan, [2021] BCJ No 923, 2021 BCCA 181

<sup>&</sup>lt;sup>2</sup> https://laws-lois.justice.gc.ca/eng/acts/P-4.2/page-1.html

of sex when they perform substantially the same kind of work in the same establishment, their work requires substantially the same skill, effort and responsibility and their work is performed under similar working conditions"<sup>3</sup> (3). Recent case history in Canada shows that the courts started using gender-neutral assumptions or other alternative approaches when dealing with each individual case. The reason behind this change is the recognition by the courts that historical statistical data incorporates the impact of systemic discrimination women were subject to, and that the labor market trends are changing. However, as the recent court cases demonstrate, the courts and forensic accounting experts have not arrived yet at a shared understanding and treatment of gender-related assumptions in lost earnings projections.

Public policy makers recognize potential gaps in social policies that contribute to continued disadvantage of women in the labor force. They also recognize that the unpaid work performed predominantly by women is the foundation of the population's wellbeing; however, this work is still grossly undervalued. As Marylin Waring, former Member of Parliament of New Zealand, put it in 1989, all of the unpaid activities performed by women, from housework to child bearing, are considered as unproductive and having no market value – from the perspective of the National Accounts, women performing these activities are at leisure<sup>4</sup>.

Alternative views are adopted when estimating the contribution of unpaid work and to measure its value through time use studies. However, this trend remains in development, even though it represents the basis of measuring the wellbeing of the population and forms the foundation of public policy setting – the 2009 report commissioned by then president Sarkozy<sup>5</sup> recommended the time-use studies as a way of obtaining insight into goods produced and

<sup>&</sup>lt;sup>3</sup> <u>http://www.payequity.gov.on.ca/en/AboutUs/Pages/the\_act.aspx</u>

<sup>&</sup>lt;sup>4</sup> Marilyn Waring, "Counting for Nothing"

<sup>&</sup>lt;sup>5</sup> Report by the Commission on the Measurement of Economic Performance and Social Progress

consumed at home. It has not yet brought about the societal change that would answer the question of how courts should handle damages calculations in cases involving women. Further public policy changes through clear regulation and associated public opinion changes should take place for the historical imbalance to be fully rectified. The World Economic Forum estimated in 2021 that at the current rate it would take 136 years to close the gender wage gap<sup>6</sup>.

In the meantime, forensic economists have the task of substantiating their assumptions in lost earnings calculations. What would be the fair calculation in the absence of regulation that mandates addressing the impact of historical discrimination – should gender be considered and to what extent?

I will look at historical trends in labor force participation rates, gender earnings gap, and worklife expectancy measurements by various statistical authorities and researchers, and the reasons behind them. I will also look at the impact of firm policies, as well as the parental leave policies and their potential impact on the gender gap. I will then look at the options available to forensic economists in handling gender statistics in lost earnings calculations, including a case study demonstrating the impact of one of such approaches. I will also review the success of these approaches through the court case judgements in recent years. Then I will discuss how forensic economists can contribute to the fairness and accuracy objectives of the courts until public policy makers and society reach a uniform understanding of what gender discrimination is and how it should be addressed in lost earnings damages assessment.

<sup>&</sup>lt;sup>6</sup> World Economic Forum, Global Gender Gap Report 2021

# II. GENDER IN THE CONTEXT OF LABOR FORCE PARTICIPATION, WORKLIFE EXPECTANCY AND EARNINGS

### A. Gender discrimination

For decades now gender earnings gap has been acknowledged to be an issue and has been known to exist. Both regulation and employer practices were changed to address it, and significant progress has been made. However, the improvements to date have not eliminated the historical disparity in earnings between women and men, and there is a long way ahead – according to the 2021 study from the World Economic Forum, on its current trajectory it will take another 136 years to close the gap completely<sup>7</sup> – a slight setback from the previous year due to the global pandemic. As Guy and Fenley put it, "this incremental path produces halting advances, each met with the checks and balances of judicial oversight followed by legislative modification in the midst of grudgingly slow social change"<sup>8</sup>.

At the time the US Equal Pay Act of 1963 and Title VII of the Civil Rights Act of 1964 prohibited the discrimination in wages for equivalent work, women in the US were mainly seen as wives and mothers, with overall labor force participation at 38%, and were paid \$0.59c on the dollar compared to men<sup>9</sup>. Nevertheless, gender discrimination continued and manifested itself in the following areas<sup>10</sup>:

• Education – although, women are closing the gap (approximately 56% of post-secondary students in Canada are women);

<sup>&</sup>lt;sup>7</sup> Ibid. 6

<sup>&</sup>lt;sup>8</sup> Guy, Mary E., Fenley, Vanessa M., "Inch by Inch: Gender Equity Since the Civil Rights Act of 1964"

<sup>&</sup>lt;sup>9</sup> Ibid. 8

<sup>&</sup>lt;sup>10</sup> Brittany Lambert (Oxfam Canada) and Kate McInturff (CCPA), "Making women count: the unequal economics of women's work"

- Distribution of unpaid work (women in Canada perform almost twice as much unpaid work as men do);
- Undervalued work in predominantly female fields (e.g., underground oil drillers and miners in Canada, 97% of whom are male, make a median annual wage of \$93,523<sup>11</sup> working full time. Nurses, 91% of whom are female, make a median annual wage of \$76,984<sup>12</sup>);
- Concentration of men and women in different fields of work;
- Unspoken social norms for offering men higher wages and rates of promotion from the start (male nurses, despite working in a female-dominated field, have higher median annual wages - \$80,417<sup>13</sup> compared to \$76,629<sup>14</sup> earned by women working full time).

The federal Pay Equity Act of 2018 came into force in 2018. However, and despite provincial legislation such as Ontario's Pay Transparency Act of 2000, women in Ontario were paid on average \$7200 less in 2016. In Ontario, the highest paid 10% of women are paid 37% less than the top 10% of men<sup>15</sup>.

As a result of lower lifetime earnings, women can become dependent on the higher earning but potentially abusive spouse and fall into poverty if divorced, have low retirement savings and become poor seniors, and have long-term health issues due to overwork<sup>16</sup>.

### B. Labor force participation rate

<sup>&</sup>lt;sup>11</sup> Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016304

<sup>12</sup> Ibid. 11

<sup>&</sup>lt;sup>13</sup> Ibid. 11

<sup>14</sup> Ibid. 11

<sup>&</sup>lt;sup>15</sup> Canadian Women's Foundation, Fact Sheet THE GENDER WAGE GAP IN CANADA

<sup>16</sup> Ibid. 15

Labor force participation trends for women increased significantly over time, while men's participation rates declined slightly. Goldin (2014) describes four phases of development for women's labor force participation – three evolutionary phases that took place from 1890s to 1920s, 1920s to 1950s, 1950s to 1970s, and a quiet revolution of 1970s to 1990s and early 2000s. Notable traits she mentions are: the menial work during the first phase, acceptance of women's employment during the second one when it did not stop at marriage, and increase in education levels during the third phase. It was during the last revolutionary phase that women started thinking about their employment not as a job but as a career that became part of their identity and contributed to their overall satisfaction. Goldin disagrees that a "natural" female participation rate has been reached just because the rate of increase has stalled in the early 2000s as the composition of the labor force continues to change<sup>17</sup>.



(Reproduced from Goldin)

<sup>&</sup>lt;sup>17</sup> Goldin, Claudia, "The Quiet Revolution That Transformed Women's Employment, Education, and Family"

Guy & Finley show women's employment in the US from 1964 to 2012 by sector, noting increasing proportion of services, especially of education and healthcare (Appendix 2). They attribute the changing status of women in the workforce to the following reasons:

- Shift in cultural expectations of the gender roles;
- Cost of living pressures resulting in two-earner households;
- Legislation enabling more women to earn education and seek employment<sup>18</sup>.



Number of women employed by sector, 1964-2012; US; Reproduced from Guy & Finley

According to Hegewisch and Lacarte<sup>19</sup>, women's average annual hours worked rose substantially while men's hours declined only marginally, and the share of all employed women who worked full-time, year-round rose sharply during the last four decades, from 44.7% in 1980

<sup>&</sup>lt;sup>18</sup> Ibid. 8

<sup>&</sup>lt;sup>19</sup> Hegewisch, Ariane, Lacarte, Valerie, "Gender inequality, work hours and the future of work"

to 62.2% of all employed women in 2016 (US Bureau of Labor Statistics 2018a, Table 23). Based on the US Bureau of Labor Statistics, full-time, year-round is defined as at least 35 hours per week, for at least 50 weeks per year (annual 1750 hours). Women have exceeded on average this fulltime measure since the mid-1990s and remained above ever since. Total hours worked by men remained relatively stable over the same period.

Figure 1. Men's Usual Annual Hours Worked Only Marginally Declined since 1977, Women's Rose Substantially

Average Annual Hours Worked by Workers Ages 25–64, by Gender, 1977–2017



Notes: Usual annual hours worked is calculated as "usual weekly hours worked" times "weeks worked in last calendar year."

Source: IWPR analysis of microdata from the CPS ASEC (Flood et al. 2018).

#### (Reproduced from Hegewisch and Lacarte)

Canadian labor force participation rates<sup>20</sup> show similar trends to those in the US – over the last decade, women's participation rates were declining at a lower rate than the participation rate for men. Based on Statistics Canada data for 1976 to 2020 period, women's labor force participation rate increased from 45% to nearly 62%, and leveled off since mid-2000s, with marginal decline since 2013. Male participation rates were declining over the whole period, with

<sup>&</sup>lt;sup>20</sup> Statistics Canada. Table 14-10-0327-01, Labour force characteristics by sex and detailed age group, annual

the decline since 2013 being low, but still faster than those of women. Given the downward pressure of retiring baby boomers on the overall labor force participation rates, steady participation rate for women might be an indication of continuous increase in the younger cohorts. However, the vulnerability of women's labor force participation rates was clearly demonstrated during COVID-19 pandemic – women's participation rates dropped dramatically as they were the primary caregivers during stay-at-home lockdowns, as well as held a disproportionately high share of service jobs (waitresses, hairdressers, air hostesses).



Source: Statistics Canada

### C. Unpaid work

As the labor force participation rates for women were changing, the perception of their traditional roles as mothers and homemakers did not change as dramatically. Their contribution to the housework decreased over time; however, men's contribution did not increase to the same extent to make up the shortfall. Some researchers found that the economic benefits of bringing more women into the labor force were greater than previously thought. The US Bureau of Economic Analysis publishes a satellite account that estimates the value of production by

households, complementing the gross domestic product (GDP) measure<sup>21</sup>. Kanal and Kornegay found that the household production, based on hours, remained relatively consistent over the years, even though it proportionally declined in significance over time as more women engaged in market work. The inclusion of household production in the adjusted measure of GDP contributed 37% of the satellite account's output in 1965, whereas in 2017 it made up 23%. Appendix 3 shows the adjusted GDP growth rate calculated by the authors against the growth rate of National Income and Product Accounts (NIPA) GDP, where both rates track each other closely. The noticeable differences in 2005 and 2013 are driven by weakness or strength of the household worker wages, which were used to estimate the market value of household production. The time series graph shows clear trends differentiated by gender, with women, particularly non-employed women, spending more time on household activities than men<sup>22</sup>.



#### Chart 1. Growth Rates of NIPA GDP and Adjusted GDP, 2003–2017

#### (Reproduced from Kanal and Kornegay)

 <sup>&</sup>lt;sup>21</sup> Kanal, Danit, Kornegay, Joseph Ted, "Accounting for Household Production in the National Accounts"
 <sup>22</sup> Ibid. 21





#### (Reproduced from Kanal and Kornegay)

Women on average contribute to the household production more than men across all countries, the disparity being the highest in the developing countries<sup>23</sup>.



(Reproduced from Elaine Schwartz)

<sup>&</sup>lt;sup>23</sup> Schwartz, Elaine, "Where women do the most unpaid work"

Developed countries are in a better situation; however, the imbalance is still significant – Canadian women contribute 3.6 hours per day compared to 2.4 hours by men. The chart below for G7 countries and Sweden, shows that combined unpaid and paid work total for females is close to or exceeds the same for males $^{24}$ .



Average number of hours spent on paid and unpaid work (total work burden), women and men aged 15 to 64, G7 countries

(Reproduced from "Women in Canada: A gender-based statistical report" 2018)

The value of household work performed by mothers as a second work shift is generally recognized. However, the models incorporating household production into damages calculation are still being only proposed for use by the forensic economists and have not yet achieved broad application.

Baum II and Rodgers, who looked at estimating the present value of lost household production in wrongful death cases involving deceased mothers, suggested using the age of the

<sup>&</sup>lt;sup>24</sup> "Women in Canada: A gender-based statistical report" (2018)

youngest child and the number of children. They also noted that the traditional utility maximization framework of the economic theory is used to show how mothers allocate their time among marketplace work, household services, and leisure. In this framework, children increase the value of the time spent at home (and the opportunity cost of marketplace work and leisure)<sup>25</sup>.

Appendix 7 - Gender inequality and the future of work



Notes: Mothers and fathers defined as having children younger than 18 years old; includes individuals ages 18-64, irrespective of whether they are employed or not and irrespective of marriage status. Data are collected in minutes per day, averaged to the nearest full hour.

### D. Potential labor force participation rate

Krueger and Slesnick<sup>26</sup> look at the alternative measure of labor force participation, developed by Corcione and Thornton (1991), comprised of actual labor force participation and

<sup>&</sup>lt;sup>25</sup> Baum II, Chalrlse L., Rodgers, James D., "Maternal household services and children", *Journal of Forensic Economics*, 2018, Volume 27(1)

<sup>&</sup>lt;sup>26</sup> Krueger, Kurt V., Slesnick, Frank, "Total worklife expectancy", *Journal of Forensic Economics*, 2014, Volume 25(1)

voluntary non-participation. This potential labor force participation rate allows to capture some of non-market (unpaid) work performed by women that remained under-measured.

The authors quote the conclusions of Corcione and Thornton study as:

- 1. The potential labor force participation rate for women is considerably higher than the actual rate for women, but the two rates are much closer for men; and,
- 2. The potential rates for men and women are nearly identical $^{27}$ .

The US Judge Richard Posner in his article "Conservative Feminism" for the University of Chicago law journal argues that the appropriate measurement of the unpaid work should be the lost earnings:

If a housewife is disabled, how should her lost "earnings" be evaluated? My analysis of a housewives' tax implies that <u>a minimum estimate of a disabled housewife's lost earnings</u> <u>is the wage she would have commanded in the market</u> (summed over the estimated period of disability and then discounted to present value at the appropriate interest rate), for if those earnings were less, she would switch from household to market employment. This method of estimation would probably yield higher estimates <u>than the "replacement cost" method, which is the one most courts use at present and is flawed by the tendency to ignore the quality dimension of the housewife's services. [emphasis added]<sup>28</sup></u>

Krueger and Slesnick's<sup>29</sup> arguments for departure from using solely paid employment statistics are:

• The "accuracy" claimed in gender-specific assumptions – fewer years worked by women that are deemed a fair measurement of damages, and defendants not having to pay for social inequities are discriminatory;

<sup>27</sup> Ibid. 26

<sup>&</sup>lt;sup>28</sup> Posner, Richard A., "Conservative feminism", *Chicago Unbound*, University of Chicago Law school, 1989

<sup>&</sup>lt;sup>29</sup> Ibid. 27

- The legal standard of earning capacity focuses on what the plaintiff *could* have earned rather than what plaintiff *would* have earned;
- Economic theory and data show that the personal economic value of domestic activity exceeds the money returns achievable in the labor force<sup>30</sup>.

Given Kanal and Kornegay's estimate of adjusted GDP, indicating 37% and 23% increase in 1965 and 2017 respectively<sup>31</sup>, was calculated using the rate of household worker wages. Applying the market earnings of women instead, as suggested by Judge Posner, would increase the adjusted GDP even further, although the issues of practicability would intervene. But even without this change in measurement, the significance of household production is undeniable.

### E. Worklife expectancy

Overall worklife expectancy, measured as the number of years in paid employment, remains shorter for women, despite having increased dramatically over time.

As part of the analysis on transition probabilities to determine worklife expectancies (based on average transition probabilities between active status and inactive status, and from either active or inactive status to deceased status), Allen<sup>32</sup> finds that women's shorter worklife expectancy is explained by their statuses "taking care of family" and "in retirement". He calculated average transition probabilities as follows:

• Average population by gender from Current Population Survey (US) over a 60-month period ending Dec'2009;

<sup>&</sup>lt;sup>30</sup> Ibid. 26

<sup>&</sup>lt;sup>31</sup> Ibid. 21

<sup>&</sup>lt;sup>32</sup> Allen, Craig A., "Labor force transitions by gender: implications for separate and combined worklife expectancy", *Journal of Forensic Economics*, 2020, Volume 29(1)

- Transition probabilities are calculated for each age and labor force participation state (active and inactive) by gender;
- Transition probabilities by age are reduced by mortality rates for each age and gender.
   Allen highlights the following "six patterns:
- For the great majority of ages, Active women have shorter worklife expectancies than Active men. And for the great majority of ages, Inactive women have shorter worklife expectancies than Inactive men.
- The gap in worklife expectancy between Active women and Active men narrows as age increases. And the gap in worklife expectancy between Inactive women and Inactive men also narrows as age increases.
- 3. As age increases, the gap in worklife expectancy between Active men and Inactive men widens. The same pattern is seen for women.
- 4. At ages below the approximate age of 40, worklife expectancy for men, whether Active or Inactive, is greater than worklife expectancy for women, whether Active or Inactive. At that age range, gender is a greater differentiator of worklife expectancy than is the labor force participation state of being Active or Inactive in the labor force.
- 5. At ages higher than the approximate age of 40, worklife expectancy for all those who are Active, whether male or female, is greater than worklife expectancy for all those who are Inactive, whether male or female. At that age range, the current participation state in the labor force is a greater differentiator of worklife expectancy than gender.
- 6. For higher levels of education, the gap between women and men at younger ages is narrower than at lower levels of education."<sup>33</sup>

<sup>33</sup> Ibid. 32

Another observation is that women's transition probabilities into the labor force are unfavorable compared to men's virtually at all ages and education levels.

Allen also hypothesizes that worklife expectancy is shorter for women due to time taken off for childbearing, with the expectation that lower labor force participation in the age range of 25 to 44 would rebound once the women exceed the age of 44; this hypothesis proves to be not true. However, he does not offer discrimination as potential reason for his hypothesis not holding true. The observations that women's transition probabilities into the labor force and worklife expectancies in most cases never catch up with, let alone exceed, those of men (apart from later age and higher level of education) suggest that childbearing and associated opting for flexibility are not the only reasons for women's shorter worklife expectancies<sup>34</sup>. The author does not offer other potential reasons for the difference in worklife expectancies at different ages, such as women having depressed labor force participation at earlier ages and lower education levels might be due to the fact that it is more difficult for them to get a job to begin with, and more so after having children and interrupted work history. Women taking care of other family members, such as elders, may be another reason.

Allen attempts to calculate a combined worklife expectancy table<sup>35</sup> that ignores gender, applying the same methodology (Markov increment decrement model<sup>36</sup>) used by Skoog-Cieska-Krueger for gender-specific worklife expectancy tables (which are regularly updated and are used by forensic economists for damages calculations). Weighted average probabilities are used to construct combined worklife expectancies, using a recursive formula, for each age, education level and labor force participation state. Allen asks whether the use of combined tables equalizes

<sup>34</sup> Ibid. 32

<sup>35</sup> Ibid.. 34

<sup>&</sup>lt;sup>36</sup> Foster, Edward M., Skoog, Gary R., "The Markov Assumption for Worklife Expectancy", *Journal of Forensic Economics*, 2004, Volume 17(2)

projected worklife expectancies between men and women, given that labor force participation and levels of education by age and gender vary. Allen uses average population of men and women over the same period (60 months ending in Dec'2009) to calculate population-average worklife expectancy by age for men and women, and finds that:

- "The worklife expectancy ratio between women and men using gender-specific tables is between 88% and 90% between ages 25 and 55, declining to 82% by age 61.
- Using the combined tables has the result that women's population-average worklife expectancies are more than 100% of those for men at ages 30 and under. The results for women then decline as age increases, to 88% at age 61<sup>37</sup>".

Even though Allen's finding is that using the combined table does not equalize worklife expectancies, it substantially improves the average worklife expectancy for women.

### F. Earnings

Even and Macpherson's<sup>38</sup> graph depicts the well-known story of the women's to men's earnings gap over the past fifty years for the US. They also plotted the wage gap ratio by the cohort – by groups of women born in different decades from 1930s to 1980s (the last cohort to have reached the age of 35). The ratio of women's to men's median annual earnings has been steadily improving, although all cohorts show the same pattern – the ratio dips in mid-career at ages 25 to 45 (which are also the childbearing ages) and rebounds after the age of 45. As a result of the legislation and changes in employer practices, the gap has narrowed significantly in the last decades, as seen in the higher ratios for the later-born cohorts; however, it still remains.

<sup>37</sup> Ibid. 32

<sup>&</sup>lt;sup>38</sup> Even, William E., Macpherson, David A., "The gender wage gap and the Fair Calculations Act", *Journal of Forensic Economics*, 2020, Volume 29(1)



Figure 1. Female/Male Median Annual Earnings Ratio, Ages 21-64Source: March 1962-2016 Current Population Surveys



(Reproduced from Even and Machperson)

Figure 2. Female/Male Median Annual Earnings Ratio, Age 21-64 by Age and CohortSource: March 1962-2016 Current Population Surveys

(Reproduced from Even and Machperson)

One reason for lower wages is resemblance in the nature of work to work traditionally done by women – such as education and caring for others (childcare or eldercare). Markets continue to value them less as if they were, at least in part, voluntary and therefore should not be paid as much for. Another potential reason is educational attainment – while more women than men are earning higher levels of education, they are younger than their male counterparts with the same level of education, widening the gap.

Even & Macpherson examine the assumptions for the earnings base, earnings growth and worklife expectancy, and give the following reasons for the differences in earnings by gender:

- Women choose flexibility that allows them to take care of the families, for example, by choosing part-time work;
- Women do not invest in themselves as much (human capital perspective) spend less time on training and education;
- Women self opt into occupations that offer less pay they either choose occupations that have lowest depreciation for the time spent off work during childbearing, or are pushed into specific occupations based on cultural or social norms;
- Employers use statistical discrimination in their hiring decisions offering lower pay to women with the expectation of them quitting<sup>39</sup>.

The authors suggest that the earnings gap resulting from women's choices, as opposed to the gap remaining unexplained, is not discrimination in itself; that it is the unexplained gap that may be stemming from gender discrimination as it is not possible to correlate with any identifiable

<sup>39</sup> Ibid. 38

driver. They support it with their finding that much of the earnings gap is observed within occupations that value long hours, where background and education are not reasons any more.

They still concede that discrimination exists, and offer two options for determining damages that would counter the effect of discrimination in historical statistical data:

- 1. Determine the impact of gender discrimination and apply that factor to gender-specific assumptions as restatement;
- 2. Use male statistics  $^{40}$ .

The authors acknowledge that determining the extent of discrimination for option 1 would be challenging, as existing literature addresses earnings gap only, and not earnings growth or worklife expectancy.

As Hegewisch and Lacarte's<sup>41</sup> report shows, women are more likely to take up part-time work, particularly during their primary working years. Childcare is the main reason quoted – mothers spend twice as much time on childcare as fathers. Therefore, the availability of statutory maternity and parental leave, as well as the actual utilization by both mothers and fathers, has a direct impact on women's ability to maintain steady full-time employment. Involuntary part-time work is highest for women. Women have reduced access to the highest-paid jobs due to the practice of overwork, which persists, despite it being the reason for reduced productivity, higher injuries, and lower job satisfaction. Choosing flexibility, women pay the price – in terms of earnings, workload and career.

<sup>40</sup> Ibid. 38

<sup>41</sup> Ibid. 19

# Table 1. Women are More Likely than Men to Work Part-time,Particularly During their Primary Working Years

Women's Share of All Part-time Workers, and Women and Men Part-time Workers as Share of All Workers, 2018

	Women's Share of all Part-time workers	Women Part-time Workers as Share of all Women Workers	Men Part-time Workers as Share of all Men Workers
Less than 18 years	57%	93%	86%
18-24 years	57%	51%	38%
25-54 years	63%	23%	12%
55-65 years	64%	29%	15%
66+ years	51%	50%	37%

Notes: Actual hours worked. Part-time work is defined as work of 1 to 34 hours per week.

Source: IWPR analysis of microdata from the monthly Current Population Survey (Flood et al. 2018).

(Reproduced from Hegewisch and Lacarte)

Shortage of childcare forces women to interrupt their careers or choose part-time work. As a result of taking part-time jobs, Canadian women have lower access to employment insurance and have lower payout due to low wages<sup>42</sup>.

According to the OECD Family Database<sup>43</sup>, the availability and generosity of paid parental and home care leave varies considerably across the OECD countries. The OECD average entitlement available to mothers stands at just 36 weeks, while 12 countries offer no paid home care leave at all. Canada offers 15 weeks paid maternity leave (with equivalent of 55% of income paid through employment insurance) and around 35 weeks paid home care leave. Province of Quebec stands out in this regard as it has a longer maternity leave at 18 weeks, and income replacement of 75% through employment insurance. Quebec also provides fathers with statutory paternity leaves of up to five weeks, unlike the rest of Canadian provinces. Combined with a relatively high income replacement rate at 75%, Quebec's policy has been a success, with 76% of men in Quebec taking parental leave compared to 26% of men in the rest of Canada<sup>44</sup>.

<sup>42</sup> Ibid. 15

<sup>&</sup>lt;sup>43</sup> OECD Family Database, "Parental Leave Systems"

<sup>&</sup>lt;sup>44</sup> Becoming a parent: Government programs and services, <u>tt2021 s7 informations.pdf (inspq.qc.ca)</u>

Paid leave reserved for fathers tends to be shorter on average. The OECD countries offer just over 8 weeks of paternity leave. Six OECD countries provide no paid paternity leave at all. Japan and Korea provide the longest paid leave at around 12 months<sup>45</sup>. 93% of the parental leave available to both mothers and fathers in Canada is taken by women.

The comparison of statutory leave entitlements runs into the expected comparability issues, such as:

- State or local governments can provide alternative entitlements not captured;
- Employers may top-up payments not captured;
- Leave benefits may be subject to taxation only in some countries;
- It does not show actual utilization social norms may act as barriers; for instance, only 3% of fathers in Japan take paternity leave<sup>46</sup>.

Spend per child incorporates the utilization of statutory leaves, with Scandinavian countries topping the chart here. However, even in these countries, for which the data is available for statutory leave usage per 100 live births, only 55 fathers utilized the benefit. In terms of male to female ratios, men are always less likely to utilize parental leave than women – in Iceland and Sweden only 45% of total users were men, with the average across the countries that had data available at 20%. The intensity of the paternity leave was lower compared to maternity leave in terms of number of days taken – the fathers' share of total leave days was 29% in Iceland and 28% in Sweden<sup>47</sup>.

<sup>&</sup>lt;sup>45</sup> OECD Family Database, "Parents' utilization of childbirth-related leave"

<sup>46</sup> Ibid. 45

<sup>47</sup> Ibid. 45

At the same time, social benefits are currently gender-neutral – for instance, Canada's employment insurance qualification threshold does not take into account the reality of women's lower level of employment and earnings.

Even when the statutory entitlements for parental or other leave are topped up by the employers, such benefits are not always available to part-time workers. The chart below from Hegewisch and Lacarte's report<sup>48</sup> shows that the access to family leave, sick leave or paid leave is the lowest for the lowest earning 25% of the population and part-time workers. The US is the only developed country that does not offer paid statutory maternity leave<sup>49</sup>.

Figure 12. The Majority of Low-Paid and of Part-time Workers are not Given Access to Paid Leave by their Employers Access to Paid Family Leave, Paid Sick Leave, and Paid Vacations for Civilian Workers, for All,

Highest and Lowest 25 Percent of Earners, and Part-time Workers, 2018



Notes: All ages. Data are not available by gender, race, or ethnicity.

Source: Authors' compilation based on National Compensation Survey (U.S. Bureau of Labor Statistics 2018g).

(Reproduced from Hegewisch and Lacarte)

<sup>&</sup>lt;sup>48</sup> Ibid. 19

<sup>49</sup> Ibid. 43

In a Statistics Canada research paper, Li, Dostie and Simard-Duplain<sup>50</sup> (36) applied the methodology developed by Card, Cardoso and Kline (2016) to the Canadian context to measure the impact of the firm's hiring and wage-setting practices. The composition of a firm's workforce reflects the firm's propensity to hire certain workers over others, as well as workers' preferences for different types of firms. The authors were able to explain nearly one-quarter of the 27% gender earnings gap in Canada through firm-specific pay premiums; firms' hiring and pay-setting practices each explained approximately one-half of that effect. Comparisons across the three largest provinces revealed that British Columbia has the highest gap, with a preponderant role attributed to sorting (firms' hiring practices), while the gap in Quebec is approximately two-thirds as high and is explained in greater part by pay-setting policies. Ontario is somewhere in-between the other two provinces.

### G. Gender-neutral and gendered assumptions

Even and Macpherson<sup>51</sup> bring up the following arguments for and against using genderspecific assumptions. They list arguments in favor of using gender-specific statistics as:

- Improved accuracy of the forecast of earnings, earnings growth and worklife expectancy;
- If market outcomes are the result of choice, for instance, if women earn 20% less than men because they voluntarily choose different occupations, work hours and labor force participation rates, considering the use of gender may be fair.

The argument against using gender-specific assumptions are quoted as:

<sup>&</sup>lt;sup>50</sup> Li, Jiang, Dostie, Benoit, Simard-Duplain, Gaelle, "What is the role of firm-specific pay policies on the gender earnings gap in Canada", Statistics Canada
<sup>51</sup> Ibid. 38

Page **27** of **71** 

- Gender should not be used in estimating damages since this is a form of "statistical discrimination" that makes use of a person's group status to form projections; although, gender-specific rates are currently allowed for auto (women are charged less as they are deemed safer drivers) and life insurance (women are charged less due to longer life expectancy);
- Labor market outcomes are due to, at least in part, gender discrimination and should be ignored when estimating economic losses; for example, if women earn 20% less than equally skilled men, it would be unjust for the courts to perpetuate this injustice;
- Gender differences in labor market characteristics might be attributed to social norms or anticipation of discrimination;
- Chamallas (2005) is quoted as saying that the use of gender "saddles nonconforming women and minorities with generalizations about their group, the very kind of stereotyping that anti- discrimination laws were meant to prohibit"<sup>52</sup>.

Additionally, the traditional Markov model criticisms include the fact that it calculates averages, not necessarily representative of a specific individual. Applying gender-specific data to women that will not necessarily spend time in non-market activities such as homemaking shortens their paid worklife expectancy.

### H. Gender-neutral assumptions – a case study

Spizman<sup>53</sup> presented a case study examining the impact on damages awarded to hypothetical female and male children injured at an early age as a demonstration of "gender-neutral

<sup>52</sup> Ibid. 38

<sup>&</sup>lt;sup>53</sup> Spitzman, Lawrence M., "Damages to a child and the proposed Fair Calculations Act: a case study", *Journal of Forensic Economics*, 2020, Volume 29(1)

statistical data in order to remove alleged discrimination in awarding economic damages". Using gender-neutral assumptions for life expectancy, earnings and worklife expectancy, the author arrives at overall higher damages for a female child.

Based on the differences in components of damages, where gender-neutral calculation of cost of care for a female child is lower than gendered calculation, the author concludes that the intended outcome of the Fair Calculations in Damages Act is defeated. However, the author also concludes that the increase in earnings for females due to longer worklife is large enough to offset or lower the decrease or loss in life care costs (due to lower gender-neutral female life expectancy). Also, because males have higher earnings to begin with, the shorter worklife leading to a reduction in lifetime earnings using neutral assumptions offsets the gains or increases in the cost of care due to longer life expectancy. Similar rebalancing impact would be observed in household services damages, with a decline for females and increase for males.

The author concludes that it is a policy issue to determine if the additional benefits to females, assuming there is discrimination built into statistical data, are worth the additional cost of enforcement and implementation.

It may be logical to expect disagreement with the application of gender-neutral assumptions, with the arguments being that the males would have to pay the cost in the interim, for example, through lower damages, and everyone would have to share the cost of damages, for example, through higher premiums.

Lawrence Spizman, the then president of the National Association of Forensic Economics (NAFE), was also an avid opponent of the Fair Calculations in Damages act. At the time of the bill's first introduction in the US Congress in 2016, he said to the *Washington Post* that the bill was purely political and that race, gender, religion, sexual orientation were the buzzwords of liberal politicians. Though he did not expect the bill to pass, he expected there to be unintended

consequences. He claimed that if women and minorities get the same compensation, insurance companies would be the ones who had to pay. Since insurance companies tend to foot the bill for large damages awards, he argued, those increased costs would be passed onto the companies and individuals buying the insurance<sup>54</sup>. This would spread the cost of fair damages among all, thus making them pay for the cost of existing gaps in public and social policies – the same people who would fund them through taxes anyway.

### **III.** ALTERNATIVE APPROACHES TO ESTIMATING FEMALE LABOR FORCE PARTICIPATION AND EARNINGS

The Supreme Court of Canada defined lost earning capability as a capital asset consisting of income earning capacity (*Andrews*<sup>55</sup>). According to the Canadian laws of evidence, the judge may receive into evidence anything that, in the opinion of the judge, is reliable and appropriate, even if it would not otherwise be admissible under Canadian law, and may base his or her decision on that evidence; the judge shall consider all the factors that would be relevant for a determination of admissibility in the proceedings. *R. v Mohan*<sup>56</sup> defined the admissibility criteria for expert testimony as relevance, necessity, absence of an exclusionary rule, and qualifications of the expert. According to section 15 of the Canadian Charter of Rights and Freedoms, equality rights mean:

(1) Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without

<sup>&</sup>lt;sup>54</sup> The Washington Post, Kim Soffen, Dec 1, 2016,

https://www.washingtonpost.com/news/wonk/wp/2016/12/01/congress-could-soon-try-to-end-racial-and-gender-discrimination-in-civil-suits/

<sup>&</sup>lt;sup>55</sup> Andrews v Grand & Toy Alberta Ltd, [1978] 2 SCR 229, [1978] 2 RCS 229, 1978 CanLII 1

<sup>&</sup>lt;sup>56</sup> R v Mohan, [1994] 2 SCR 9, [1994] 2 RCS 9, [1994] SCJ No 36, [1994] ACS no 36, 1994 CanLII 80

discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

(2) Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability<sup>57</sup>.

Having reviewed the various aspects of gender in the context of damages assessment for female victims, the following approach seems to be the most reasonable:

- Using gendered historical statistical tables based on the approach used by the actuarial science only when warranted, such as for calculation of life expectancy of the victim.
  - This factor does not contain the impact of overt or covert discrimination. Also, not applying gendered approach in this case would deny female victims, who are known to have longer life expectancy, the quality, and potentially the dignity, of life.
- Using male statistics for labor force participation, earnings and worklife expectancy.
  - The reasoning for the earnings (earnings growth) is that male history of earnings is much longer and includes lower degree of discrimination – the systemic discrimination the female portion of the labor force was subjected to is not included, where they had to go through the stage of self-identification as career-pursuing individuals and acceptance as qualified and capable professionals. Using male median earnings for females in lost earnings projections would be consistent with

<sup>&</sup>lt;sup>57</sup> Canadian Charter of Rights and Freedoms

the value markets set for a specific skillset and expertise. Male earnings statistics still include the impact of racial discrimination as black and other minority males still make less than white males. In this sense the use of male median earnings only helps women. The issue of race is still unresolved (as BBC news article *"NFL: How race-based formulas are interfering with concussion lawsuits"* from June 3, 2021 demonstrates). To eliminate the impact of racial bias as well, the earnings of white males would be the right baseline to use for the same reason – they represent the value markets set for a specific skillset and expertise, with the effects of discrimination minimized.

- Using male labor force participation rates. The reason to believe the participation rates are virtually identical between genders is the study<sup>58</sup> on the potential labor force participation rates that used time, including time spend on unpaid work, to estimate the participation rates. Unpaid work needs to be considered because of the benefits derived from it by all members of women's families, which makes it productive work. The magnitude of such work is confirmed through the adjusted GDP measure<sup>59</sup>.
- Using male worklife expectancy tables as a substitute for women's to both capture the years spent in homemaking as productive time and to avoid extensive work in estimating what this time would have been. The main reason quoted by various authors for women's shorter worklife expectancy is time taken off for childbearing and childrearing. The fact that it is the mother who leaves paid employment speaks more of continued pay disparity. Either parent choosing to stay at home does not

<sup>58</sup> Ibid. 38

<sup>59</sup> Ibid. 21

stop working per se. The fact that it is not captured in the current system of national accounts is an omission rather than representation of the objective reality. Measuring the value of it at opportunity cost is at least equivalent to foregone income, but it is likely higher, given longer hours childcare entails.

The success of the above approach would depend on a number of factors and would require some major shifts in the mindset both for some of the forensic economists (judging by the NAFE members' survey responses discussed below) and for the society as whole. To enable the wider acceptance of this approach the following changes are needed:

- Public services change towards universal childcare similar to that of Quebec.
  - Bloomberg CityLab<sup>60</sup> ran an article praising the childcare system in Quebec on April 29, 2021: "While child care centers across the U.S. have faced a spate of closures during the pandemic, the Canadian province that pioneered a model for universal subsidized child care had a markedly different experience even from the rest of Canada." Since the system was introduced in 1997, Quebec's female labor force participation rate for 25 to 44-year-old cohort increased 10% to 87%, from being 2% behind the average for Canada in 1997 to being 6% ahead in 2020<sup>61</sup>. Federal government's announcement in September 2020 of a plan to build Canada-wide childcare system will enable the country to move in this direction. Evidently, child care alone has raised Quebec's GDP by 1.7%<sup>62</sup>.

<sup>&</sup>lt;sup>60</sup> Bloomberg CityLab, Lessons From Quebec on Universal Child Care - Bloomberg, April 29, 2021

<sup>61</sup> Ibid. 20

<sup>&</sup>lt;sup>62</sup> Government of Canada Department of Finance News, <u>Budget 2021: A Canada-wide Early Learning and</u> <u>Child Care Plan - Canada.ca</u>

- Statutory parental leave, and specifically paternity leave, at federal level and incentives for utilization (or deterrents for lack of utilization)
- Change in public opinion about childbirth and childcare as investment in the future as opposed to being a lifestyle choice.
  - The classification of the decision to have or not to have children as a "lifestyle choice" in many court cases seems rather frivolous. The decision to have children may lead to different lifestyles for the parents, and it is not made lightly, but it is not without a cost for both parents. Acknowledging it as an activity with economic value would be a good start.
  - The following commentary from *Coppolacomment.com* blog puts it very eloquently: "Having children is often described as a "lifestyle choice", usually by people without children who object to supporting families with children. But this is poisonous quasi-egalitarian nonsense. People who choose not to have children rely on other people's children to support them in their old age. If we want a prosperous economic future, we need to enable working people to have children if they wish, by reducing those opportunity costs<sup>363</sup>.

### A. Gendered assumptions

This option may no longer be available in the near future, especially in the US, if the Fair Calculations in Damages Act eventually gets voted on and enacted. Some states already enacted their own version of the act, such as California Fair Pay Act that came into force in 2020.

<sup>63</sup> Children are not a lifestyle choice (coppolacomment.com)

Until the legislation is changed, however, it remains a widely used approach by the forensic economists in lost earnings damages calculations. The danger of continued use of the gendered assumptions is double-discounting – in addition to perpetuating the impact of historic inequality embedded in such statistics, the courts may apply additional negative contingencies for exactly the same historical "realities", as the courts rely on the forensic experts – to guide them in assessing the damages and putting forward the reasonable justification for any approach taken – but use own judgement in the end to rule on the damages award. Negative contingencies, usually applied as a percentage adjustment to the total damages for potential absence of women from the labor force for reasons such as childbirth and childcare, are particularly troublesome, as they treat the parenting as exclusively women's responsibility. Therefore, under such treatment the financial cost of parenting is borne exclusively by women.

The approach has been challenged on constitutional grounds both in the US and in Canada. Both countries more widely accept that race should not be used in determination of damages (although, the results of 172 NAFE members survey indicate that close to a half of the forensic economists would still consider the race in case of an injured child<sup>64</sup>). However, the use of gender is still considered a current standard: 94% of NAFE survey respondents said they would use gender.

In the US, the constitutional challenge to gendered statistics has not been successful so far, as even race-based statistics, although more widely accepted to be discriminatory, are still allowed. Vanderbilt Law Review<sup>65</sup> quoted: "As a threshold matter, only those race-based and gendered

<sup>&</sup>lt;sup>64</sup> The Lawyers' Committee for Civil Rights Under Law, "How race, ethnicity, and gender impact your life's worth: Discrimination in civil damage awards"

<sup>&</sup>lt;sup>65</sup> Goodman, Loren D, <u>For What It's Worth: The Role of Race- and Gender-Based Data in Civil Damages Awards</u> (vanderbilt.edu), Vanderbilt Law Review, 5-2017, Volume 70, Issue 4

classifications that constitute state action can validly support challenges under the Fourteenth Amendment".

In Canada, the alternatives to gendered assumptions have been presented to the courts over the last two decades, but more as an exception than a rule, potentially for fear of appeal in the absence of a definitive ruling. There has been no case taken to the Supreme Court of Canada, which would only interfere when it finds that "the trial judge has made a manifest error, has ignored conclusive or relevant evidence, has misunderstood the evidence, or has drawn erroneous conclusions from it"<sup>66</sup>. Even favorably leaning judges comment that the counsels for plaintiffs do not provide sufficient evidentiary support for them to rule against the use of gendered assumptions.

In *Toneguzzo-Norvel*<sup>67</sup>*l* (1994) case, Justice MacLachlin highlighted that the Supreme Court of Canada did not have alternatives to the gendered assumptions to review, even though she recognized that the use of gendered tables reflected past inequities:

**22** But the trial judge went further. Jessica's counsel had not asked him to increase the award to compensate for the **fact that the earning tables for women reflect past inequities which have historically resulted in women on average earning less than <b>men**, inequities which arguably should not be imposed on Jessica...

**23** Before us, counsel for Jessica argued that both the trial judge and the Court of Appeal had erred. She urged this Court to set aside their award for lost future earning capacity and to substitute an award based on male earning tables.

**24** Any attempt to implement this submission on this appeal runs squarely up against the impediment that, on the record and submissions of counsel before the trial judge, it is impossible to say that the trial judge erred, much less that his conclusion on the award for lost future earning capacity was wholly erroneous. The trial judge in fact went further than

<sup>&</sup>lt;sup>66</sup> Renaud, Kathleen, "Apples to oranges? Gendered damages in personal injury litigation: a focus on infant claims", *Alberta Law Review*, 2018

<sup>&</sup>lt;sup>67</sup> <u>Toneguzzo-Norvell (Guardian ad litem of) v Burnaby Hospital, [1994] 1 SCR 114, [1994] 1 RCS 114, [1994] SCJ No</u> <u>4, [1994] ACS no 4, 1994 CanLII 106</u>
counsel for Jessica urged him to do in considering the potential inequity of applying earning tables based on past earnings of women. Given that the only evidence on the record before the trial judge was the earning table for women, and given that he was asked to apply only this table, the most the trial judge could do was take into account as a positive contingency the expectation that as greater equality is achieved between men and women in our society, women's earnings will increase. This Court is in no better position. **Due to the manner in which this case was presented at trial, we are not in a position to entertain the arguments advanced for the first time in this Court that female earning tables should be replaced by other alternatives. Consideration of these arguments must await another case, where the proper evidentiary foundation has been laid. [Emphasis added]** 

In *Terracciano v Etheridge*<sup>68</sup> (1997, *BC*) the defendants asked to award damages for loss of future income based on statistical averages for female persons, discounted for negative contingencies and reduced 30% to allow for future earnings. The judge noted that:

**80** Apart from the fact that **these statistics perpetuate historical inequality** between men and women in average earning ability, and that they **have hidden in them serious discounts** for lower and sporadic participation in the labour market **which are duplicated by many of the negative contingencies** used by economists to massage the numbers downward, such statistics may provide little assistance in predicting the future of a particular female plaintiff: Tucker, supra, and [B.I.Z.], supra. [Emphasis added]

The Vanderbilt Law Review<sup>69</sup> author does not recommend removal of gendered statistics completely, calling it a nuclear option, as "the removal of one factor may be to the plaintiff's benefit, whereas the removal of another may be to his detriment". The case of Wheeler Tarpeh-Doe (1991) is given as a cautionary tale, where the removal of gendered statistics resulted in damages for an African American boy at the level even lower than originally suggested by the defendants. However, the affirmative action approach, where gendered statistics would provide

<sup>&</sup>lt;sup>68</sup> Terracciano (Guardian ad litem of) v Etheridge, [1997] BCJ No 1051, [1997] 7 WWR 185, 33 BCLR (3d) 328, 36 CCLT (2d) 92, 28 MVR (3d) 77, 71 ACWS (3d) 64

<sup>69</sup> Ibid. 63

women with a "damages floor", is criticized for its potential unfairness to the defendants, making a single defendant responsible for compensating systemic discrimination.

Removal of gender is not necessarily a nuclear option, especially if it is replaced by alternatives such as socioeconomic status which bring about the same result. The example of children with lead paint poisoning<sup>70</sup> proves the point – since such paint was present in poorer neighborhoods, where mostly minorities lived, future economic potential determined on the basis of community ties could be equivalent to using race.

In the case of a child, socioeconomic background, such as the educational background of the parents, their occupation, work ethic, and community ties would be all the information available to assess damages. Using female employment statistics as a starting point would disadvantage a female child even further.

The Canadian Charter of Rights specifically allows actions ameliorating the conditions of disadvantaged individuals. However, even with explicit reference to the constitutional rights for equality, the outcomes of the specific cases differ on the meaning of the gendered employment statistics and whether they reflect inequity, or if they should be taken as separate considerations of "reality". Gendered approach, therefore, persists.

# B. Using male statistics if there is disparity between male and female employment statistics

1. Gender bias embedded in actuarial statistical tables

<sup>70</sup> Ibid. 62

A relatively recent case<sup>71</sup> seems to make an obvious but still relevant point – namely, that equally qualified and capable individuals should be paid the same wages, even if we are talking about a female working in a male-dominated occupation. The fact that this point had to be argued suggests that there is still a while to go towards gender equality.

#### Clayton v Barefoot, 2018 BC

**135** Mr. Carson testified that the reason male statistics were used was because there were not enough woman working in occupations like steel erectors for there to be an adequate sample size for analysis. Also, it is his view that **if a woman is physically capable of doing the job and puts in the same number of hours, she will make the same amount as a man**. Mr. Carson also maintained that he based his premise on a person who works in the labour force and does not compromise work for family formation. As a result, male statistics were the appropriate measurement for Ms. Clayton.

Male employment statistics have been used by courts in Canada since the 1990s, although in many cases as a starting point before applying negative contingencies. Nevertheless, the fact that many courts across Canada accepted this approach as more equitable indicates that part of the way for forensic economists is covered already.

#### Audet v Bates<sup>72</sup> (1998, BC)

**76** I see no logical or compelling reason to differentiate between male and female earning capacity when making an assessment in relation to an infant whose work and education prospects cannot be identified or characterized with any precision. There is good reason to subscribe to the opposite view which is that in the context of emerging community standards, **an infant who is a female will be afforded the opportunity in the course of her working life to earn income at the same level as an infant who is a male**.

<sup>&</sup>lt;sup>71</sup> <u>Clayton v Barefoot, [2018] ILR para M-3069, 2018 BCSC 239, [2018] BCJ No 282</u>

<sup>&</sup>lt;sup>72</sup> Audet (Guardian ad litem of) v Bates, [1998] BCJ No 678, 78 ACWS (3d) 406

According to Alberta Law Review<sup>73</sup>, Court of Appeal judgement in *MacCabe<sup>74</sup> (2001)* case is a binding precedent in Alberta, and it continues to put the costs of procreation entirely on women. The *MacCabe* case introduced the notion of "female negative contingencies", denoting negative contingencies associated with childbirth and childcare. Based on the stated intentions of the injured teen female victim about motherhood, the damages were reduced based on the judge's opinion that Charter considerations were secondary where the plaintiff indicated desire for motherhood.

The appellate judge gave the following definitions of negative contingencies:

**98** There are three negative contingencies applicable to both men and women in the tables provided. These are non-participation in the labour force, unemployment and part-time work. In his report dated September 20, 1997, Taunton described these contingencies and his method of calculation as follows (AB3987-3988):

Non-Participation in the Labour Force - this is the first of three negative labour market contingencies which have been incorporated into the analysis. Participation rates measure the propensity of individuals to be working or (if not working) actively seeking work.

Factors normally explaining withdrawal from the labour market include voluntary retirement, **temporary absences to care for other family members** or to pursue other interests (i.e. education, travel) and involuntary withdrawal for reasons of illness/sickness/disability.

Unemployment - data are available from the 1991 census, documenting rates of unemployment amongst Alberta females with a bachelor's degree (other than law) by five year age cohort. These rates were converted to single year values through simple mathematical interpolation and adjusted by the ratio of

<sup>73</sup> Ibid. 64

 <sup>&</sup>lt;sup>74</sup> MacCabe v Westlock Roman Catholic Separate School District No 110, [2001] AJ No 1278, 2001 ABCA 257, [2002]
 <u>1 WWR 610, 96 Alta LR (3d) 217, 293 AR 41, 9 CCLT (3d) 259, 108 ACWS (3d) 832</u>

the long-term rate of unemployment in Alberta to the rate prevailing in the 1991 Census year.

Part-Time Work - the part-time factor for Alberta females with a bachelor's degree (other than law) are derived from 1991 Census data, with conversion to single year data using simple mathematical interpolation.

**127** While I do not forecast that MacCabe would have had four children and stayed at home until all of them were in school, the fact that she expressed this preference cannot be ignored and supports **the appropriateness of applying female contingencies since they reflect the likelihood that women will take time out of the paid workforce**, and in particular, more accurately reflect that this individual female likely would have taken time out of the paid workforce.<sup>75</sup>

[Emphasis added]

Alberta Court of Appeals ruling in *MacCabe* case, where the trial judge instructed both parties to use male statistics, comes as a surprising outcome, given the similarity of arguments from both the trial judge and the appellate judge. They both seemed to have used the same case law precedents, even agreed that application of male earnings tables in assessing lost earnings for a female teen victim was reasonable; however, they differed on the meaning of what inequity in the statistical data was.

The following reasoning from the trial judge was quoted by the appellate judge due to it being "unique"<sup>76</sup>:

87 The appellants urged the court to use female specific earning tables. MacCabe argued that use of female tables is potentially discriminatory. The learned trial judge agreed and refused to adopt female specific statistics. I quote from her reasons at 117-8 (paras. 469-470) at length as her approach is unique:

<sup>75</sup> Ibid. 72

<sup>76</sup> Ibid. 73

It is entirely inappropriate that any assessment I make continues to reflect historic wage inequities. I cannot agree more with Chief Justice McEachern of the British Columbia Court of Appeal in Tucker [(Public Trustee of) v. Asleson (1993) 78 B.C.L.R. (2d) 173 (B.C.C.A.)] that the courts must ensure as much as possible that the appropriate weight be given to societal trends in the labour market in order that the future loss of income properly reflects future circumstances. Where we differ is that I will not sanction the "reality" of pay inequity. The societal trend is and must embrace pay equity given our fundamental right to equality which is entrenched in the constitution. The courts have judicially recognized in tort law the historical discriminatory wage practices between males and females. The courts have endeavoured to alleviate this discrimination with the use of male or female wage tables modified with either negative or positive contingencies. However, I am of the view that these approaches merely mask the problem; how can the court embrace pay inequity between males and females? I cannot apply a flawed process which perpetuates a discriminatory practice. The application of the contingencies, although in several cases reduce the wage gap, still sanction the disparity.

A growing understanding of the extent of discriminatory wage practices and the effect of the societal inequity must lead the court to **retire an antiquated or limited judicial yardstick** and embrace a more realistic and expansive measurement legally grounded in equality. Equality is now a fundamental constitutional value in Canadian society ....

... The court cannot sanction future forecasting if it perpetuates the historic wage disparity between men and women. Accordingly, if there is a disparity between the male and female statistics in the employment category I have determined for the plaintiff the male statistics shall be used, subject to the relevant contingencies. Once again if the contingencies are gender specific, then the contingencies applicable to males shall be used except in the case of life expectancy, for obvious reasons<sup>77</sup>.

[Emphasis added]

<sup>77</sup> Ibid. 72

The appellate judge flatly disagreed with the interpretation given by the trial judge on the meaning of statistics as a reflection of inequities:

**124** The appellants invited guidelines from this Court on the appropriateness of using male earning statistics and male negative contingencies to assess damages for a female because, as evident from the wide variety of approaches taken in the cases cited above, there is no uniform methodology. However, I need not make that determination because in this case, **the application of <u>female contingencies</u> would not perpetuate or sanction historical and societal discrimination**. Further, **wage statistics perpetuate nothing. Valid data reflects historical reality**<sup>78</sup>.

#### [Emphasis added]

Such opposing interpretation of negative contingencies by the trial and appellate judges indicates that not everyone is convinced that withdrawal from the labor force for childcare is part of the "reality". There is another issue at hand, namely, how society views the female ability for childbearing and prevalence of childcare duties performed by mothers. Still, the court sanctioned use of gender might be possible to overturn if the courts receive sufficient and consistent expert testimony on the alternative approaches instead of simply relying on gendered statistics provided by the actuarial science.

While there seems to be a consensus on compensating loss of ability to perform household services as a separate head of damages, time taken off from paid employment for childbearing and childcare, or resulting part-time work, continue to be treated as the result of "lifestyle choices". This definition seems to be uncontroversial, as many cases indicate:

Audet v Bates<sup>79</sup>, 1998 BC

<sup>&</sup>lt;sup>78</sup> Ibid. 75

<sup>&</sup>lt;sup>79</sup> Ibid. 70

**79** Where an infant is involved, I am not prepared to take the historical gap into account. I will, however, take into account the fact that without injury, there is a real likelihood that Teddy would not remain in the work force. **Rather she might choose to marry and raise a family. To this point, the value of non-employment choices has not been expressed in economic terms so as to be compensable.** 

**81** I assess damage for the loss of future earning capacity in the amount of \$560,000. The assessment is based on the assumption that there is an equal possibility that Teddy would have completed two years of post secondary education or a university degree. It eliminates the distinction between an infant male and female population, and is discounted by 30%. **The discount reflects my assessment of the contingencies with respect to lifestyle choice** and the likelihood that community standards of responsibility will afford Teddy an opportunity to engage in some form of remunerative employment.

#### Steinebach vs Fraser Health Authority<sup>80</sup> (2011, BC)

**62** Others components of the difference between men's and women's average earnings may, **indeed, reflect lifestyle choices.** Of particular importance are **patterns of earning related to childbearing and child-rearing**. Women, to a much greater extent than men, leave the workforce or engage in part-time work so that they are able to bear and raise children.

[Emphasis added]

The defendants (and presumably their forensic experts) in *Steinebach* case argued that the "application of female contingencies does not perpetuate or sanction historical and societal discrimination. Rather, these contingencies reflect the patterns and choices women actually make in the labor market, including the potential for having and raising children"<sup>81</sup>. If such statements are supported by forensic economists when they are hired by the defence but are opposed to when hired by the plaintiff, we run into the credibility issue for the profession as a whole. However, if

 <sup>&</sup>lt;sup>80</sup> <u>Steinebach (Litigation guardian of) v Fraser Health Authority (cob Surrey Memorial Hospital), [2011] BCJ No</u>
 1200, 2011 BCCA 302, 310 BCAC 142, 84 CCLT (3d) 1, 19 BCLR (5th) 92, [2011] 11 WWR 104, 2011 CarswellBC 1595, 204 ACWS (3d) 420
 <sup>81</sup> Ibid. 78

the forensic economists in this case truly believed in the statements they made, it would indicate that we still have a lot of minds to win over, before we can tackle the legal system.

Speaking of women's choices, a surprising definition of what women's choices represent was given in *A.T.-B.* v *Mah*<sup>82</sup> (2012, *AB*) case, where the use of the word "typical" seems to encompass all the limitations faced by women in education, workplace and earnings:

**747** Put another way, the position advanced by the Plaintiffs compares apples with oranges. A., as a female, can be anticipated to choose a **university program that is more typical of female students**, leading to a **job more typically occupied by a female**, and then being paid an **income that is typical** of the amounts reported by Statistics Canada and summarized by Dr. Bruce. **This is not a question of inequity or discriminatory treatment between the genders but, rather, reflects the pattern of occupations pursued by each gender**<sup>83</sup>.

#### 2. Economic value of childbearing and childrearing

The Court of Appeals of British Columbia in *Steinebach<sup>84</sup>* case, while agreeing with the principle of negative contingencies in *MacCabe<sup>85</sup>* case, put forward the ideas of potential economic value of childbearing and of shared responsibility for the cost of childcare. However, the appellate judge stated that only the first point was undeniable and the second one was subject to debate:

66 The difficulty I have with the approach in *MacCabe*, however, is that it treats childrearing as an activity having no economic value. I do not believe that this reflects the reality for most parents who choose to withdraw from the paid workforce to raise children, or choose to take part-time work in preference to full-time work. Nor am I of the view that the law requires child-rearing to be treated as a non-economic activity.

<sup>&</sup>lt;sup>82</sup> <u>AT-B v Mah, [2012] AJ No 1416, 2012 ABQB 777, 79 Alta LR (5th) 223, [2013] 9 WWR 648, 554 AR 272, 2012</u> CarswellAlta 2371, 228 ACWS (3d) 570

<sup>83</sup> Ibid. 80

<sup>84</sup> Ibid. 78

<sup>85</sup> Ibid. 72

67 The value of child-rearing has long been recognized in the domain of family law. **Spouses are treated as economic partners.** Where one takes over child-rearing responsibilities that would otherwise have to be paid for or shared by a spouse, he or she is still seen as contributing to the family's economic well-being, and this may have an effect on family asset division in the case of marital breakdown.

69 The **burden of economic costs being a shared one**, **it can be misleading to represent it as simply being borne by the spouse who does not earn an income.** Yet, for the purposes of earnings tables, this is exactly how the burden is reflected. For certain purposes, it would be more accurate to account for the shared burden by notionally transferring earnings from the income-earning partner to the partner who decreases his or her income in order to devote time and effort to child-rearing.

70 Women are much more likely than men to leave the workforce temporarily or reduce their paid work in order to take on homemaking or child-rearing roles. **The result is that earnings tables reflect the economic costs associated with such decisions as falling disproportionately on women**. Earnings for men are thereby overstated, while those for women are understated.

71 Even if it were to reject the idea of treating the costs associated with such decisions as shared ones, **the Court would still have to adjust earnings table amounts to reflect the economic value of child-rearing**. At one time, it may have been debatable whether a spouse who took on child-rearing or housekeeping responsibilities could claim compensation if, as a result of a tort, s/he became unable to continue to perform them (see Regina Graycar, "Hoovering as a Hobby and other Stories: Gendered Assessments of Personal Injury Damages" (1997) 31 U.B.C. L. Rev. 17). It is now established, however, that a person who undertakes housekeeping activities and is disabled from doing so can make a claim to pecuniary damages: *Kroeker v. Jansen* (1995), 123 D.L.R. (4th) 652, 4 B.C.L.R. (3d) 178 (B.C.C.A.)<sup>86</sup>.

[Emphasis added]

<sup>86</sup> Ibid. 78

The economic value of the childbearing and childrearing seem to not have been determined as, according to statements by both *Steinebach*<sup>87</sup> judge in 2011 and by *Audet* judge in 1998 at paragraph 79, "to this point, the value of non-employment choices has not been expressed in economic terms so as to be compensable"<sup>88</sup>.

As reported by the Thomas B. Fordham Institute, a conservative American non-profit education policy think tank<sup>89</sup>,

Starting in fall 1997, Quebec began offering large public subsidies, open to all parents, for center- or home-based childcare programs serving youngsters up to four years old. As of 2011–12, the program cost \$2 billion per year and subsidized roughly 80 percent of a family's child care costs. Quebec has been the only province to adopt such an expansive childcare policy. For example, from the mid-1990s to 2008, Quebec children in center-based childcare jumped from 10 to 60 percent; during that same period, the rise was just 10 to 20 percent in the rest of Canada<sup>90</sup>.

Given the accompanying labor force participation increase for women and GDP growth since the adoption of Quebec's universal childcare policy, having mothers take time out of paid employment or working part-time due to childcare is saving billions in public funds – meaning women are absorbing that cost, and getting penalized for it when it comes to assessing their worklife expectancy in damages calculation. Cost of childbearing will remain exclusively female if the public opinion does not change.

<sup>87</sup> Ibid. 84

<sup>88</sup> Ibid. 70

<sup>&</sup>lt;sup>89</sup> <u>A cautionary tale: Universal childcare in Quebec | The Thomas B. Fordham Institute</u>

<sup>90</sup> Ibid. 87

If other types of care were included in the equation, such as caring for other family members and elders, there would be additional public funds saved in healthcare and long-term care.

#### 3. Gender earnings gap

The appellate judge in  $MacCabe^{91}$  case used the legal standard set in 1880 by *Liningstone* v Rawyards Co<sup>92</sup> (31) on the meaning of *restitutio in integrum* principle in damages cases,

**39** ...I do not think there is any difference of opinion as to its being a general rule that, where any injury is **to be compensated by damages**, in settling the sum of money to be given for reparation of damages you should as nearly as possible get at that sum of money which will put the party who has been injured, or who has suffered, **in the same position as he would have been in if he had not sustained the wrong** for which he is now getting his compensation...<sup>93</sup>

#### [Emphasis added]

Relying on a legal standard that old suggests there was little attempt to right the historical wrongs. The Supreme Court of Canada judgement in *Grant v Torstar Corp*  $(2009)^{94}$ , seems not only to allow such latitude to judges, but sees it as court's duty (32):

**46** While *Hill* stands for a rejection of the *Sullivan* approach and an affirmation of the common law of defamation's general conformity with the *Charter*, it does not close the door to further changes in specific rules and doctrines. As Iacobucci J. observed in *R. v. Salituro*, [1991] 3 S.C.R. 654, at p. 670, "[j]udges can and should adapt the common law to reflect the changing social, moral and economic fabric of the country." It is implicit in this duty that the courts will, from time to time, take a fresh look at the common

93 Ibid. 90

<sup>&</sup>lt;sup>91</sup> Ibid. 72

<sup>&</sup>lt;sup>92</sup> Livingstone v Rawyards Coal Co, (1880) 5 App Cas 25, 42 LT 334

<sup>&</sup>lt;sup>94</sup> <u>Grant v Torstar Corp, [2009] 3 SCR 640, 2009 SCC 61, [2009] 3 RCS 640, [2009] SCJ No 61, [2009] ACS no 61</u>

## law and re-evaluate its consistency with evolving societal expectations through the lens of *Charter* values.

British Columbia Court of Appeals judgement in *Steinebach v. Fraser Health Authority*  $(2011)^{95}$  is frequently quoted as ground-breaking; however, even in this case the judges do not agree with full elimination of the gap between male and female earnings as a matter of principle for damages calculation on the basis that it is not expected to happen in the near future:

**42** Mirella's future, absent the injury at birth, was much more indeterminate than that of the *McCabe* plaintiff and the applicable statistics necessarily more general. The question here is whether the minimal discount from male earnings allowed by the trial judge can be supported in the face of evidence that he accepted of an approximate 40% gap between lifetime male and female earning capacities in Mirella's category of one to two years' post-secondary education. The test for appellate review has long been accepted as stated succinctly in *Nance v. B.C. Electric Rlwy Co.*, [1951] A.C. 601 at 613, (P.C.). To be varied, the award must be so inordinately low or so inordinately high as to be a wholly erroneous estimate of the damage. In my respectful view, the trial judge's award on the evidence he accepted fails that test. **I think that he was entitled to take judicial notice that there will be some increase in female earnings in Mirella's category relative to male earnings but it was wholly erroneous for him to conclude on the dearth of evidence before him that the <b>40% present gap will be almost entirely eliminated and that female earnings will rise to currently projected male earnings.** I would therefore set aside the award of damages for loss of future capacity based on the figure of \$890,000<sup>96</sup>.

<sup>95</sup> Ibid. 78

<sup>96</sup> Ibid. 78

The final award in *Steinebach*<sup>97</sup> was set at the midpoint between male and female earnings, the approach used also in *Ediger v Johnston* (2009)<sup>98</sup> (35) case. This approach seems to be doing exactly what so many judges and justices said the courts should not be doing – perpetuating existing situation when the earnings between genders have not converged yet. The exact point where the final award is set is not relevant if it is not at parity. One might argue that awarding damages at parity earnings to female victims would put them ahead of the women actively participating in the workforce – but what woman would argue against parity being achieved at least by some? The additional argument in favor of this approach would be that we are talking about victims of injuries – they would not be able to actively pursue pay equality throughout their working lives as they are limited in such capabilities.

The *Ediger*<sup>99</sup> case also highlighted that in the case of young child with no history to rely on, family background plays a role in determining the educational attainment and career the victim could have had but for the injury:

323 Most fundamentally, Cassidy's pre-injury potential must be determined. In this task, I look **primarily to the background and experience of her immediate and extended family**, as providing a reasonable basis from which to project the future Cassidy likely would have had without the injury.

324 Cassidy's immediate family is very stable, and rooted in a strong and consistent family history. This suggests that Cassidy would not likely have departed from the social model into which she was born.

325 Mrs. Ediger and Mr. Ediger are **both hard-working** within their immediate family and in the larger community. Mrs. Ediger has a background in paid and volunteer positions

<sup>97</sup> Ibid. 94

<sup>&</sup>lt;sup>98</sup> Ediger (Guardian ad litem of) v Johnston, [2009] BCJ No 564, 2009 BCSC 386, 65 CCLT (3d) 1, 2009 CarswellBC 773, 177 ACWS (3d) 394

<sup>99</sup> Ibid. 96

coaching gymnasts, including Special Olympians, some of whom, like Cassidy, have cerebral palsy. Mr. Ediger has worked with his father and his brother in the family's business for approximately twenty years. There is every reason to conclude that Cassidy would likewise have had strong social values and a motivation to succeed.

326 Mr. Carson referred to the general trend for children to achieve a level of education beyond that of their parents. **Mrs. Ediger has a university degree** in physical education, and completed her teaching certification through Simon Fraser University during her pregnancy with Cassidy. Mr. Ediger graduated from high school and completed three months of post-secondary education at a bible school. There is no indication that any of Cassidy's grandparents was university educated.

327 In light of Mr. Carson's observation, together with undisputed statistical information concerning the **percentage of young females** in British Columbia who achieve, respectively, a post-secondary non-university certificate, a bachelor's degree, a master's degree, and a professional degree, I conclude that Cassidy would likely have achieved the earnings level corresponding to that of the average person with a bachelor's degree or teaching certificate. However, I would recognize a reasonable possibility (quantified at 20 percent) that her formal education and training would conclude at the college diploma (post-secondary non-university certificate) level<sup>100</sup>.

In such cases with no prior work history of the victim, other considerations like family background play the primary role in assessing the damages. It would be reasonable not to complicate the process with female earnings statistics that are known to be or at least suspected to be impacted by the society's past discriminatory practices. The factors pertaining to the family background will play a more significant role for children of minorities, who would be fighting an uphill battle to prove a higher educational and occupational attainment than their parents.

A similar uphill battle, with the burden of proof being on the female plaintiffs, would be at play if female earnings are used as a starting point, when the plaintiff would have to prove "above average" intelligence, a particularly strong work ethic and the like. The same would apply in the

<sup>&</sup>lt;sup>100</sup> Ibid. 96

case of male earnings used as a starting point and then applying "female contingencies". Also, as Vanderbilt Law Review author put it, "given increased prevalence of interracial relationships and complex gender identities beyond the classic male-female divide, an entirely new problem is erupting for traditional race-based and gendered statistics. Similar to the evolved understanding of multicultural individuals, there appears to be a growing recognition of gender fluidity". Apart from the considerations of practicability, complexity creates confusion for the jury.

#### 4. Male employment statistics as a default position

The final case, *McColl v Sullivan*, was chosen as an example of the most recent court decision. The original trial judgement in  $2020^{101}$  covered the following aspects of the points discussed so far:

- Para 141, 147-8: voluntary non-participation in the labor force as a negative contingency;
- Para 142-3: use of female statistics only perpetuates inequity;
- Para 150: use of male employment statistics is mandated.

#### McColl v Sullivan, [2020] BCJ No 177, 2020 BCSC 137

141 The defence relied on a report from an economist, Mr. Mark Gosling, who reviewed Mr. Benning's report and provided adjusted present value calculations. Mr. Gosling's primary complaint with Mr. Benning's work was that Mr. Benning "restricted his non-participation contingency to exclude non-participation for any reason other than disability". **Mr. Gosling says that the non-participation category** is intended to account for the possibility that the individual will not be working or actively seeking work for any number of reasons, **including disability, preference for leisure (including retirement) over paid work, and preference for unpaid household work (including caring for children or disabled family members) over paid work**.

<sup>&</sup>lt;sup>101</sup> McColl v Sullivan, [2020] BCJ No 177, 2020 BCSC 137

**142** Mr. Gosling provided present value calculations for females only. Under cross examination Mr. Gosling agreed that **he was not aware of data indicating that female editors earned less than male editors**, and that "if a female will behave like a male, the male projection would be okay".

**143** There is a meaningful discrepancy between the calculations done using female statistics, as against male statistics. **This discrepancy has been accepted in our courts as indicative of embedded gender bias and historical inequality in the underlying statistical information.** The court of appeal in *Gill v. Lai*, <u>2019 BCCA 103</u> discussed this issue as follows:

[54] Judges can and do recognize income statistics may incorporate historic and inequitable gender-based pay differences and, as such, have increasingly taken a cautious approach to gender-based income statistics. In *Crimeni v. Chandra*, <u>2015 BCCA 131</u>, this Court said:

[23] Experts are frequently asked to estimate the income losses by using gender-specific historical income figures. Such figures may be useful where they can fairly be said to be the most accurate predictor of the lost stream of earnings. However, there is authority for the proposition that the use of female earning statistics may incorporate gender bias into the assessment of damages. **There is also authority for taking judicial notice of convergence in gender incomes:** *Steinebach v. O'Brien,* 2011 BCCA 302.

[24] It is certainly not an error, in my view, for a trial judge to recognize that the use of historical data can reflect such bias and, to the extent, the circumstances giving rise to the bias may be expected to diminish, to view the evidence as conservative.

[25] I can see no error in the judge's consideration of the plaintiff's preinjury earning potential.

[55] In my view, the same can be said of labour market contingencies. It is not an error to recognize gender-based contingencies can incorporate bias. Having said that, we must bear in mind the quantification of damages necessitates an individual approach. **144** I find that it would be inappropriate to rely on female statistics, particularly in the case of Ms. McColl who intended to be competitively employed in the film industry until her retirement.

**145** However, I am also not persuaded that the male multipliers prepared by Mr. Benning are appropriate because of his restricted assessment of non-participation factors.

**148** Further, Ms. McColl has demonstrated many creative interests, including music and comedy, which she may choose to pursue over the course of her life, and which may take her out of the work force. She has said she wishes to start a family. She has parents that she may be asked to assist with as they age. None of these possibilities are certain. But the point of using statistics in developing the non-participation multipliers is they take into account statistical possibilities against the population as a whole. To find the statistical multipliers were not useful in Ms. McColl's case, I would have to find that there was no possibility of her taking any time out of the work force for anything except disability.

**149** I am not persuaded that there is a real and substantial possibility that Ms. McColl is so extraordinary that non-participation factors should be restricted to disability alone.

**150** In the result, the parties are directed to assess the present value of Ms. McColl's future loss, using the following assumptions and directions:

- a) Ms. McColl will work until age 65,
- b) Ms. McColl's loss from April 1, 2019 until December 31, 2022 is \$60,000 per annum,
- c) Ms. McColl's loss from January 1, 2023 until her 65th birthday is \$78,000 per annum,
- d) calculations will be prepared using economic multipliers, including all conventional non-participation factors, and
- e) male earning statistics will be used<sup>102</sup>.
  [Emphasis added]

The appeals court sent the case back to the lower court in April 2021<sup>103</sup>, for an unrelated

reason, but raised the following points of relevance to this discussion:

<sup>&</sup>lt;sup>102</sup> Ibid. 99

<sup>&</sup>lt;sup>103</sup> McColl v Sullivan, [2021] BCJ No 923, 2021 BCCA 181

- para 32-35: to what extent should statistics serve as a measure of a disadvantaged group's damages? Quoting *Steinebach*<sup>104</sup>, the appellate judge chose the mid-point between male and female earnings to be reasonable;
- para 36-38: the judge reinforces childbearing as being a "lifestyle choice" quoting *Steinebach*, but omits the second part of the *Steinebach* argument at para 66-79 mentioned earlier in this discussion that childbearing has economic value;
- para 39-40: with reference to *Gill* and *Crimeni* cases, where either male contingencies were used, or positive contingencies were applied to female earnings, the judge highlights the need for an individual approach;
- para 42-48: the judge basically discards the notion that male employment statistics should be the "default" choice.

McColl v Sullivan, [2021] BCJ No 923, 2021 BCCA 181

#### **Grounds of Appeal**

**19** As framed by the appellants, the judge erred:

a) in concluding that Ms. McColl's award for loss of future income earning capacity should be calculated relying solely on labour market contingency tables for Canadian males;...

#### Discussion

32 Defendants found liable in negligence are responsible for putting the plaintiff in the position they would have been in but for their injuries. In applying this principle, courts are tasked with "gaz[ing] ... into the crystal ball" (*Andrews v. Grand & Toy Alberta Ltd.,* [1978] 2 S.C.R. 229 at 251) with respect to loss of future earning capacity. This may include extrapolating from general statistics that reflect societal inequalities. The question which arises is: to what

<sup>&</sup>lt;sup>104</sup> Ibid. 78

extent should these statistics serve as a measure of a disadvantaged group member's damages?

33 In approaching this question it is necessary to review *Steinebach, Crimeni* and *Gill*.

34 In *Steinebach*, the defendant health authority was found liable for brain damage suffered by the infant plaintiff due to oxygen deprivation at her birth. The trial judge awarded \$890,000 for loss of future earning capacity. In arriving at this figure, he noted that male earning capacity for somebody with the plaintiff's profile would have been \$916,600 and female earning capacity \$532,000. He projected that female earnings would rise to 97% of the projected male earning capacity over the plaintiff's lifetime and awarded damages on the basis of that projection, despite no evidence being led on the issue of convergence.

35 Justices K. Mackenzie and Groberman issued separate opinions, which were both joined by Justice D. Smith. Justice Mackenzie found that the judge erred in applying a "minimal discount from male earnings" given the "40% gap between lifetime male and female earning capacities" in the plaintiff's category: at para. 42. While it was "reasonably open to project a substantial convergence on the basis of judicial notice", the evidence did not support "near parity with current male earnings": at para. 43. Following the approach in *Walker v. Ritchie* (2005), 197 O.A.C. 81 (Ont. C.A.), var'd on other grounds, 2006 SCC 45, he instead awarded \$750,000, as the mid-point between the male and female figures: at para. 43.

36 Justice Groberman agreed in the disposition of the appeal, but expanded on the use of gender-based statistics. He noted that in projecting an infant's future income loss, courts are "generally driven to use statistical data drawn from the general population": at para. 49. These statistics often regard the sex of the child as an important factor because of the "differences in the way that men and women participate in the workforce, and because ... even factoring out participation rates, women are, on average, paid less for their work than

are men": at para. 50. In part, these differences may reflect historical realities that no longer prevail: at para. 56.

37 Evidence reflecting current realities, however, cannot necessarily be taken at face value. In his view, female earning statistics should be understood as composite of many factors, voluntary and involuntary:

[60] There are, in fact, a number of different components that account for the difference between women's average earnings and those of men. Some are simply discriminatory - - they reflect historical patterns of undervaluing the work that women do, and paying them less than men for similar work. The defendants appear to concede that such factors should not be used to reduce damage awards for infant female plaintiffs.

[61] It seems to me that such a concession is appropriate. It is no longer seen as acceptable that women should earn less than men simply by virtue of their sex. It would appear that such blatant discrimination is vanishing; in any event, the courts should not countenance such discrimination by incorporating it into damages awards.

[62] Other components of the difference between men's and women's average earnings may, indeed, reflect lifestyle choices. Of particular importance are patterns of earning related to childbearing and child-rearing. Women, to a much greater extent than men, leave the workforce or engage in part-time work so that they are able to bear and raise children. 38 Noting that the evidence at trial did not fully address these concerns, Justice Groberman accepted that Justice Mackenzie's substituted award fell within an "acceptable range": at para. 75.

39 The issue was again addressed in *Crimeni*. The plaintiff was injured in two car accidents, the latter during her fourth year of university. She testified that she anticipated becoming a lawyer and led evidence on the average earning capacity of women with law degrees, which the trial judge regarded as "very conservative" given the influence of historical discrimination: *D.(J.) v. Chandra*, 2014 BCSC 466 at paras. 190-192. The trial judge awarded her 20% of the present value of the lifetime earnings of a female lawyer: at para. 195. The appellants challenged the award on the basis that the judge underestimated the income gap between men and women with law degrees. This Court disagreed. As Justice Willcock explained:

[23] Experts are frequently asked to estimate the income losses by using gender-specific historical income figures. Such figures may be useful where they can fairly be said to be the most accurate predictor of the lost stream of earnings. However, there is authority for the proposition that the use of female earning statistics may incorporate gender bias into the assessment of damages. There is also authority for taking judicial notice of convergence in gender incomes: *Steinebach*....

[24] It is certainly not an error, in my view, for a trial judge to recognize that the use of historical data can reflect such bias and, to the extent the circumstances giving rise to the bias may be expected to diminish, to view the evidence as conservative.

[25] I can see no error in the judge's consideration of the plaintiff's pre-injury earning potential.

**40** The same issue arose more recently in *Gill*. The plaintiff was a working pharmacist who was injured in two car accidents. In assessing her damages for loss of future earning capacity, the trial judge used male labour market contingency statistics, reasoning that the plaintiff had "shown a particular adherence to the work force", valued her financial independence and had working parents: at para. 52. Further, the judge noted he was "reticent to give weight to female labour market contingencies which may have embedded discrimination": at para. 52. The appellants argued there was no evidence of embedded discrimination and the evidence of female labour market contingencies "accurately reflect[ed] the real and substantial possibilities for the respondent": at para. 53. This Court again disagreed, Justice Willcock explaining:

[54] Judges can and do recognize income statistics may incorporate historic and inequitable gender-based pay differences and, as such, have increasingly taken a cautious approach to gender-based income statistics....

[55] In my view, the same can be said of labour market contingencies. <u>It is not</u> an error to recognize gender-based contingencies can incorporate bias. Having said that, we must bear in mind the quantification of damages necessitates an individual approach.

[56] In the case at bar, the trial judge did not fail to deal with the parties before him. The respondent had borne children, made effective arrangements for childcare, participated on a full-time basis in the labour market, and was motivated to continue to participate full-time. It was certainly open to the trial judge to find she was unlikely to be affected by some of the contingencies reflected in female labour market statistics, and there was a reasonable basis upon which he could conclude the use of statistical evidence of contingencies affecting males in the labour market would result in a realistic prediction of the respondent's future. I would dismiss this ground of appeal. [Emphasis added.]

- 41 In my view, the following principles can be drawn from the above:
  - a. damages for loss of future earning capacity are to be assessed on an individual basis: *Gill* at para. 55;
  - b. gender-based earning statistics "may be useful where they can fairly be said to be the most accurate predictor of the lost stream of earnings": *Crimeni* at para.
     23;
  - c. however, gender-based earning statistics require caution because they may incorporate bias: *Steinebach* at para. 55; *Crimeni* at para. 23; *Gill* at para. 54; and
  - d. it may be reasonable, depending on the evidence, for a court to assume a convergence in earnings: *Crimeni* at para. 23.

42 What courts should in fact *do* about statistical bias is a difficult question which raises evidentiary issues and issues of principle. Discerning when the statistics reflect "bias" rather than "lifestyle choices" is not necessarily straightforward. This is also the case, as *Steinebach* notes, with projecting convergence. For reasons I explain, however, those issues are not directly before us. I would leave them for another case.

43 Suffice it to say, gender-specific statistics *guide* rather than *determine* damages. Genderspecific statistics may incidentally align with a plaintiff's gender, but not invariably so. Two examples illustrate this point. To the extent that female economic multipliers reflect a greater likelihood of leaving the workforce to care for children, they may be appropriate for a male plaintiff who intends to be a "stay at home dad". Those same statistics may be inappropriate for a female plaintiff who intends to remain in the workforce without interruption. In every case, the burden is on the plaintiff to demonstrate their future losses. 44 It is within this context that I find the judge's direction that "male earning statistics will be used" (at para. 150) to be somewhat troublesome.

**45** That is because her Reasons seem to imply that male earning statistics, including those that relate to "conventional non participation factors" (at para. 150), essentially amount to a "default" position: see para. 143.

46 I note that the expert evidence for the use of male versus female statistics was relatively slim in this case. Although the judge highlighted Mr. Gosling's comment that he was unaware of "data indicating that female editors earned less than male editors" (at para. 142), there was no evidence of male labour market contingencies in the economists' reports, since Mr. Benning had not been asked to address that issue and Mr. Gosling had restricted his report to female statistics. In fact, it was this lack of evidence on the point, apart from Mr. Gosling's generic testimony, which appears to have led the judge to direct the parties/the Registrar to calculate the present value of Ms. McColl's loss of future earning capacity.

47 I would add that certain lower court decisions have regarded the use of female statistics for female plaintiffs as "not appropriate" as a general matter: *Fancello v. Cupskey*, <u>2019 BCSC</u> <u>1724</u> at para. 233 and *Orregaard v. Clapci*, <u>2020 BCSC 1726</u> at para. 229. This may erroneously imply that female statistics may <u>never</u> be appropriate or of assistance to the court and/or that male statistics should be considered as a default position.

48 If that is what the judge intended in this case then I would consider it to be in error.

**49** In my view, the legal framework to be applied with respect to the use of gender-based statistics is that which I have set out at para. 41 above<sup>105</sup>.

<sup>105</sup> Ibid. 101

The outcome of the appeal judgement did not include a final judgement on which statistics to use as it was referred to the trial judge. Yet, the McColl case encapsulates many of the points raised in this discussion and how far the ideal future is.

#### 5. Can and should the IFAs bring about change?

As the cases demonstrate, the courts are not absolutely averse to using male employment statistics when assessing damages for female victims. The gaps observed in how the cases were presented and judged are as follows:

- With regards to gender-specific and gender-neutral assumptions, their applicability, and the reasoning for choosing male statistics, the courts seem to be presented with either limited options, options being one or two, but not all three, lack of comparison, or reasoning applied without the evidentiary support and justification.
- Forensic economics need to present a consistent approach, regardless of which party they work for. The example of a defendant's side proposing application of negative contingencies to female employment statistics takes client advocacy too far. The experts need to maintain their objectivity throughout the process, and always have the option of withdrawing from the engagement if such objectivity cannot be maintained.
- Courts rely on expert witnesses to guide them through the technical aspects of issues within the witness's expertise. Forensic economists need to use each case as an opportunity to educate the retaining counsel of the fair approach, regardless of whether the case goes to court or not. In turn, the courts will become more familiar with the fair approach and evidentiary support that comes with it, facilitating the eventual common ground.

- Not all forensic economists may subscribe to the fairness of this presumed common ground, highlighting the need to continue this discussion within the profession ahead of the expected legislative changes so that an official expert stance can be incorporated into the final regulation.
- Some public policy changes, such as universal childcare, and other social opinion changes, such as recognizing unpaid work and childbearing as having economic value, are already taking place. The quantification of the economic value of childbearing and child-rearing is still in its nascent stages; however, it does not stop the IFAs from raising society's awareness of the issue, or setting standards for the profession around it, and acting as change agents to bring about the adoption of shared understanding and uniform methodology.

#### IV. CONCLUSION

Recent legislative developments include:

- Fair Calculations Act proposed in the December 2019 session of the US Congress;
- Similar legislation in California passed and came into effect in January 2020;
- Pay Equity Act passed by the Canadian federal government in 2018.

These legislative developments indicate that forensic accountants may soon be widely required to apply gender-neutral assumptions for lost earnings projections in personal injury and fatality claims damages calculations. Current practice in the US and Canada is a mix of approaches: gender-specific assumptions, when the data is available (the argument being improving the accuracy of projections), and gender-neutral assumptions, if gender-specific data is not available. Courts are known to have accepted the use of gender-neutral future earnings projections or male employment statistics with negative contingencies, the justification being the narrowing gaps in workforce participation and pay trends between women and men. Using gender-neutral or male employment statistics in personal injury damages calculations for female victims would also make it unnecessary to capture unpaid work performed predominantly by women, as it would be captured through equalization of the employment statistics for the genders.

Criticisms of gender-specific approach include:

- Application of outdated historical trends to future earnings projections, when it is known that the labor market trends have been changing and are reasonably expected to continue to change;
- Past/available statistics reflect historical discrimination of various groups, i.e. individual behavior is projected based on group characteristics such as gender and race;
- Specifically, women are awarded lower damages based on lower worklife expectancy without taking into account their broader contribution to the economy and wellbeing of the society;
- Additionally, women's contributions outside of paid work are potentially understated (not captured as part of productive work) or undervalued (market value equivalent determined at the rate of general domestic laborer). Recent developments in public policy research suggest that the shortcomings in measuring national output and population wellbeing, ignoring household production, are recognized.

Potential challenges for IFAs:

• Availability of gender-neutral reliable statistical models/data;

- In the absence of a strong regulatory framework, development of an alternative approach for estimating damages for the victims regardless of their gender may be contested by the defendants;
- IFAs being part of the social and political debate addressing the need for change of assumptions may be at risk of losing their objectivity (real or perceived).

The value of IFA's expert opinion is directly correlated with the perceived objectiveness of said opinion, and reliable and reasonable assumptions used to arrive at it. However, continued use of gender-specific assumptions when estimating damages, specifically for women, resulting in lower projections, without a balanced review of potential alternatives perpetuates the existing practices despite their potential unfairness to women. While IFAs cannot advocate for either party in the dispute in a specific case, they can be the change agents, contributing to the scientific and social discourse by presenting the alternatives through the research and education of the parties involved (plaintiffs, defendants, lawyers and judges).

## **APPENDICES**

#### Appendix 1

#### Median employment income for nurses and miners, Statistics Canada

Source: Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016304

National Occupational Classification	With employment income (persons)	%	Median employment income (\$)		
Norked full year, full time					
301 Professional occupations in nursing					
Female	139,840	90%	79,897		
Male	14,935	10%	82,678		
Total - Sex	154,775	100%	80,115		
823 Underground miners, oil and gas drillers and					
related occupations					
Female	440	4%	76,367		
Male	11,985	96%	99,913		
Total - Sex	12,425	100%	99,275		

#### Appendix 2

#### Female labor force participation – Quebec, Statistics Canada

Source: Statistics Canada. Table 14-10-0327-01, Labour force characteristics by sex and detailed age group, annual

% rate		Canada		Quebec		Variance				
Sex	Age group	1997	2019	2020	1997	2019	2020	1997	2019	2020
Both sexes	15 to 64 years	75	79	77	72	80	80	-3	1	2
	25 to 44 years	85	87	86	84	89	89	-1	2	3
Females	15 to 64 years	68	75	74	64	78	77	-4	2	3
	25 to 44 years	79	83	82	77	87	87	-2	3	4
Males	15 to 64 years	82	82	81	79	83	82	-3	0	1
	25 to 44 years	92	91	90	91	91	91	-1	0	1

#### Appendix 3

Source: Government of Canada Department of Finance News, April 2021, <u>Budget 2021: A Canada-wide</u> <u>Early Learning and Child Care Plan - Canada.ca</u>

#### Median Toddler Fees in 2020 (gross, monthly)

Note: The data represent gross child care fees and do not include reductions from means-tested child care subsidies or tax-based supports.

Source: Canadian Centre for Policy Alternatives (2021).



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